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## PATENT ABSTRACTS OF JAPAN

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## (54) PROCESSING METHOD OF OPTICAL FIBER **TERMINAL**

## (57) Abstract:

PURPOSE: To reflect the incident light of an optical fiber and to converge the light, which is emitted from a spherical face, to a prescribed position, by processing the terminal of the optical fiber into the spherical face and grinding the spherical face at a prescribed angle and coating the ground face with a reflective film.

CONSTITUTION: The terminal of the optical fiber is formed to the spherical face, and this spherical face 10 is polished with a plate including a core 4 at an angle  $\theta$  to an optical axis 5. A ground face 6 is coated with a reflective film 7. Consequently, the characteristic of a convergent lens is given to the terminal as the result. The incident light propagating in the core 4 reaches the ground face 7 and is reflected by the reflective film 7 and reaches the spherical face on the

side opposite to the reflective film 7 through routes indicated by arrows 2 and 1. In this case, the light is not totally reflected but is all transmitted through the spherical face. This light is converged and is focused on a surface 9 of a semiconductor optical element 2. That is, most of the light incident to the optical fiber is condensed onto the surface 9.

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